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ENG-M9

990

12 NOV 1959

Classified
Engineering S.

ATTN: Chief, Procurement Division, OL
Contracts Administration Branch
Chief, Engineering Staff, OC

Contract 051-1045-9, T.O. 16-20087-9

1. Under the terms of the subject contract, [redacted]
[redacted] has submitted the prototype OS-5,
beat frequency oscillator. The prototype unit was evaluated and
rejected by the Agency.

25X1

25X1

2. The equipment was returned to the contractor on 2 November
1959 with the instructions to make the necessary equipment modifications
as outlined in Attachment A. As a result, the contractor agreed to
resubmit the prototype unit by approximately 18 November 1959.

25X1

Attachment:

Attachment A

OC-E/R, D-EP/RE:mjr (6 Nov. 59)

Distribution:

Original and 1 w/attachment
R+D Subject File w/attachment
OC-E Chrono w/o attachment
R+D Chrono w/o attachment
EP Chrono w/attachment

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ATTACHMENT A

Conclusions

The [] OS-5 prototype compares favorably with the R+D OS-5 regarding:

25X1

- (1) size
- (2) weight
- (3) circuitry

The [] OS-5 prototype does not compare favorably with the R+D OS-5 regarding:

25X1

- (1) battery power requirements
- (2) frequency stability

Recommendations

The prototype OS-5 should be improved by adjusting the biases on the 2N135 transistor circuit. The prototype uses a oscillator coil which is different from the type used in the R+D model. This may account for the increase in battery current which the prototype requires and for the loss of output voltage.

The slug in the oscillator coil changes its position because it does not fit properly in the coil. A larger slug which fits the coil form should be used or the present slug should be sealed in position after tuning the oscillator to 455 kc.

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